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imagery analysis report

SAL-Related Activities Summary Report

25X1

Top	Secret

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## **INTRODUCTION**

1. (TSR) This report is the fifth in a series of reports on SAL-related activities to be done by the National Photographic Interpretation Center. The report covers the period from and updates the preceding SAL Summary Report published in March 1980:	25X1 25X1
NPIC S-001/80, SAL-Related Activities: Summary Report (S), Mar 80 (TOP SECRET	25X1 25X1
It contains four sections which deal with strategic land-based missiles (section 1), submarine-launched ballistic missiles (section 2), cruise missiles (section 3), and long-range aviation (section 4).	
2. (TSR) Pertinent concealment, camouflage, and deception activity is included in the discussion of the various substantive areas.	
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(S) Comments and queries regarding this report are welcome. They may be directed to the NPIC SALT coordinator,	25X1

## LIST OF ACRONYMS AND ABBREVIATIONS

This list in its entirety is UNCLASSIFIED

ABM	Antiballistic missile
ALCM	Air-launched cruise missile
AOSR	Radiological liquid carrier
	E1 1 1 1

ARD(D) Floating drydock ARD(T) Transporter dock ASAT Antisatellite

ASM Air-to-surface missile
ASW Antisubmarine warfare
CAN/CAP Canister/capsule
CSF Complex support facilities
FTC Flight test center

GSE Ground support equipment

HE High explosives

ICBM Intercontinental ballistic missile

LAD Launch assist device
LCF Launch control facility
LRA Long-range aviation

MSPT Multisystem propellant transporter

MSTC Missile/space test center
MTC Missile test center
NMTC Naval missile test center

NPIC National Photographic Interpretation Center

NWPG Nuclear weapons proving ground PAT Payload-associated transporter

PBV Postboost vehicle

PGCS Propulsion guidance control section

POE Piece(s) of equipment
RAP Reactor access plate
R&D Research and development

RIM Receiving, inspection, and maintenance

RP Reporting position
RTP Rail-to-road transfer point
SAL Strategic arms limitation
SALT Strategic Arms Limitation

SALT Strategic Arms Limitation Treaty
SLBM Submarine-launched ballistic missile

SMRA Silo materials receiving area SNA Soviet naval aviation

SSB Fleet ballistic missile submarine

SSBN Nuclear-powered fleet ballistic missile submarine SSGN Nuclear-powered guided missile submarine

SSN Nuclear-powered submarine

VLF Very low frequency YRSN Nuclear ship support barge

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# Strategic Land-Based Missiles

## OFFENSIVE MISSILE ACTIVITY

4. (TSR) Partia	al coverage was acquired of all 19 ICBM complexes. The following table summarizes	
the coverage for	This table does not reflect repetitive coverage.	25X1

Complex	Number of Launchers	Number of Launchers Observed at Least Once	Percent Observed at Least Once
Aleysk	30	28	93
Derazhnya	90	36	40
Dombarovskiy	64	23	36
Drovyanaya	50	49	98
Gladkaya	60	59	98
Imeni Gastello	52	33	63
Kartaly	46	34	74
Kostroma	90	57	63
Kozelsk	110	45	41
Olovyannaya	90	83	92
Perm	80	58	73
Pervomaysk	90	30	33
Svobodnyy	60	55	92
Tatishchevo	120	28	23
Teykovo	80	44	55
Uzhur	64	64	100
Yedrovo	110	20	18
Yoshkar-Ola	60	39	65
Zhangiz-Tobe	52	39	75
Total	1,398	824	59

## Modernized SS-11

- 5. (TSR) During the reporting period, only partial coverage was obtained at the six modernized complexes. Of the 420 launch sites, 348 were seen.
  - 6. (TSR) Periodic maintenance was observed at two complexes and involved three launch groups.

## Drovyanaya

7. (TSR) Forty-nine of the 50 launch sites, the CSF, the RTP, and the training site were seen. No significant activity was observed.

## Gladkaya

8. (TSR) At Gladkaya, 59 of the 60 launch sites, the CSF, the RTP, and the training site were seen. Periodic maintenance was underway in the I group in March and in the G group during May.

## Olovyannaya

9. (TSR) Eighty-three of the 90 launch sites, the CSF, the RTP, and the training site were seen. A large, temporary support area has been observed at site 46H since a truck-mounted crane and several vehicles were observed on the apron by the open silo. On 25X1 vehicles was observed leaving the RIM area of the RTP. The vehicles included a nitrogen truck, two truckmounted cranes, and seven support trucks. Three propellant vehicles were observed in the propellant area, while a fourth propellant vehicle and transfer van were seen near the propellant transfer racks. This activity could indicate that preparations were underway to load or unload some missiles, possibly in the H group.

## Perm

10. (TSR) At Perm, 58 of the 80 launch sites, the CSF, the RTP, and the training site were observed. Periodic maintenance was observed in the J group during March.

## Svobodnyy

11. (TSR) Fifty-five of the 60 launch sites, the CSF, the RTP, the area, and 25X1 the training site were seen. No significant activity was observed.

## Teykovo

12. (TSR) During the reporting period, 44 of the 80 launch sites, the CSF, the RTP, and the training site were seen. Activity, probably related to SS-11 launches, was seen in the G group as early as 25X1 and continued through The activity included numerous vehicles and truck-mounted cranes at 25X1 several sites, as well as open silo doors. Exhaust deflector rings were observed on the apron at two sites.

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## **SS-13**

### Yoshkar-Ola

13. (TSR) Thirty-nine of the 60 launch sites were imaged. Modernization within E group launch sites was underway.

## SS-11 and SS-17

- 14. (TSR) Only 77 of the 200 launch sites and 13 of the 20 LCFs at Kostroma and Yedrovo SSM Complexes were imaged.
- 15. (TSR) The number of completed SS-17 type IIIH silos remained at 150, and the number of SS-11 type IIID silos remained at 50.
  - 16. (TSR) Fifteen LCFs are operational, and five launch control silos remained backfilled.

## Kostroma

17. (TSR) Fifty-seven of the 90 launch sites, seven of the nine LCFs, the RTP, the CSF, the training site, and the silo materials receiving area were imaged. Probable periodic maintenance was underway in the J, L, and Q groups during the reporting period. LCF JJ was completely backfilled, and the area in and around it was graded. Several vehicles were on the silo apron at site 99P, and housetrailers were at launch sites 100P and 101P.

## Yedrovo

18. (TSR) Twenty of the 110 launch sites, six of the 11 LCFs, the RTP, the CSF, the training site, and the silo materials receiving area were imaged. Probable periodic maintenance was underway at two sites in the K group during March.

	Total Launch Groups	SS-11 Launch Groups	SS-17 Launch Groups	Launch Groups Under Conversion
Yedrovo	11	0	11	0
Kostroma	9	5	4	0
Total	20	5	15	0

## SS-11 and SS-19

- 19. (TSR) Only partial coverage of the four SS-19 complexes was obtained during the reporting period.
- 20. (TSR) The number of completed type IIIG silos was 330, the number under conversion was 30, and the number undergoing modification was 40. The number of type IIID silos remained at 50.

## Kozelsk

21. (TSR) Forty-five of the 110 launch sites and seven LCFs were imaged. No change was observed at the five backfilled LCFs—KK, MM, OO, PP, and QQ.

Complex	Total Launch Groups	SS-11 Launch Groups	SS-19 Launch Groups	Launch Groups Under Conversion	Launch Groups Under Modification
Kozelsk	11	5	6	_	_
Tatishchevo	12	_	9	3	_
Derazhnya	9	3	6	_	2
Pervomaysk	9	3	6	_	2
Total	41	11	27	3	4

22. (TSR) Activity relating to the previously reported SS-11 missile recycling was seen at launch sites 125Q, 128Q, 130Q, and 131Q. This activity did not include silo loading/unloading or propellant operations. Only general-purpose vehicles were observed.

## Tatishchevo

23. (TSR) Twenty-eight launch sites, five LCFs, and the RTP were seen. Conversion activity was continuing in Launch Groups H, J, and K.

## Derazhnya

24. (TSR) Thirty-six launch sites and two LCFs were seen. Modification of the launch sites and LCFs was continuing in Launch Groups A and C.

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## Pervomaysk

25. (TSR) Thirty launch sites, four LCFs, and the RTP were seen. 25X1 Modification of the launch sites and LCFs was continuing in Launch Groups B and D.

Complex	SS-11 Launch Groups	SS-19 Launch Groups	Launch Groups Under Conversion	Launch Groups Under Modification	LCF
Kozelsk					
G		X			Complete
Н		X			Complete
I		X			Complete
J		X			Complete
K	X				Backfilled
L		X			Complete
M	X				Backfilled
N		X			Complete
O	X				Backfilled
P	X				Backfilled
Q	X				Backfilled
Tatishchevo					
Α		X			Complete
В		X			Complete
C		X			Complete
D		X			Complete
E		X			Complete*
F		X			Complete
G		X			Complete
Н			X		Ucon
I		X			Complete*
J			X		Ucon
K			X		Ucon
L		X			Complete
Derazhnya					
Α		X		X	Undergoing modification*
В		X			Complete
С		X		X	Undergoing
_					modification*
D		X			Complete*
E		X			Complete
F		X			Complete
G	X				Complete
H	X				Complete
I Danuarus susta	X				Complete
Pervomaysk		v			0 1.*
A B		X X		V	Complete*
Б		X		X	Undergoing
С		v			modification*
D		X X		V	Complete
		^		X	Undergoing modification*
Е		X			Complete
F		X			Complete
G	X				Complete
Н	X				Complete
I	X				Complete

<sup>\*</sup>Denotes a modified LCF.

## **SS-18**

26. (TSR) Partial coverage was obtained at five of the six complexes, and complete coverage was obtained at the Uzhur SSM Complex. Of the 308 launch sites, 221 were observed. All the RTPs were observed, and the support facilities were partially observed. The number of completed type IIIF launch silos remains at 248. The remaining 60 silos were still under construction. The number of completed LCFs remained at 38. Construction continued at all six of the training sites.

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## Aleysk

## 25X1

## **Dombarovskiy**

28. (TSR) At Dombarovskiy, 23 of the 64 launch sites and all the complex support facilities were seen. Conversion activity continued in Launch Group J which is in the late stages of construction. Equipment observed in the RTP during May included four SS-18 missiles with upper canister sections, SS-18 Mod-4 PBV/PGCS containers, and one LCF capsule with associated components. This equipment is probably for Launch Group J, the last group where silo conversion is not yet complete.

## •

## Imeni Gastello

29. (TSR) Thirty-three of the 52 launch sites and all the support facilities were seen. Conversion of Launch Groups G and H continued. Most of the silo doors had been installed in Launch Group G, and the silo headworks had been installed in most of the silos in Launch Group H. Two SS-18 missiles with upper canister sections and Mod-4 PBV/PGCS containers were observed in the RTP during May. An LCF capsule and its associated components were also seen. This equipment is probably for Launch Group G, which should be the next launch group where silo conversion will be completed.

## Kartaly

30. (TSR) During the reporting period, 34 of the 46 launch sites and all the support facilities were seen. Launch Groups F and G were under conversion. In Launch Group G, the silo doors were being installed, and in Launch Group F, the headworks and silo door housings were being installed. During April, three SS-18 missiles with upper canister sections and Mod-4 PBV/PGCS containers were in the RTP. An LCF control capsule and its associated components were also present. This equipment is probably for Launch Group G, which should be the next launch group completed.

## Uzhur

31. (TSR) All 64 launch sites and support facilities were seen. Conversion at Launch Groups I and J continued. Conversion was almost complete in Launch Group I, where all the silo doors had been installed and the gantry cranes removed. In Launch Group J, the silo door housings were being installed. Equipment observed in the RTP during April and May included six SS-18 missiles with upper canister sections and Mod-4 PBV/PGCS containers. An LCF capsule and its associated components were also present. This equipment is probably for Launch Group I where silo conversion is almost complete.

## Zhangiz-Tobe

32. (TSR) Thirty-nine of the 52 launch sites and the support facilities were observed. Conversion of Launch Groups G and H continued. Most of the silo doors have been installed in Launch Group H. In Launch Group G, the headworks have not been installed. During May, probable periodic maintenance was underway in Launch Group C. Equipment observed in the RTP included four SS-18 missiles, one canvas-covered CAN/CAP transporter, two SS-18 Mod-4 PBV/PGCS containers, and an LCF capsule with its associated components. This equipment is probably for Launch Group H which should be the next launch group where silo conversion will be completed.

## SS-18 Launch Group Status

Complex	Launch Groups Complete	Launch Groups Ucon
Aleysk	A, B, C,* D*	E*
Dombarovskiy	A, B, C, D, E,* F,*	J*
	G,* H,* I*	
Imeni Gastello	A, B, C,* D,* E, F*	G,* H*
Kartaly	A, B, C, D,* E*	F,* G*
Uzhur	A, B, C, D,* E,* F*	I,* J*
	G,* H*	
Zhangiz-Tobe	A, B, C, D,* E,* F*	G,* H*
Total Groups	38	10

<sup>\*</sup>Denotes a modified LCF.

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MISSILE TEST RANGES AND FACILITIES	
Tyuratam	
36. (TSR) Observations associated with strategic missiles at the Tyuratam MSTC during the reporting period included an ASAT launch from Space Launch Site G1 A/B, probable silo conversion and/or dismantlement activity at six of the 18 SS-9 launch sites, the presence of type IIIF and type IIIG silo headworks components at the test center, and prelaunch and postlaunch activity associated with two SS-17 launches, three SS-18 launches, and one SS-19 launch.	
37. (TSR) At Space Launch Site G1 A/B, an ASAT launch occurred On postlaunch coverage of a burn mark was identified on launch pad G1 B. On prelaunch coverage of no activity was observed at either launch pad.	25X1 25X1
38. (TSR) At SS-9 launch sites K1, K2, K3, O1, O4, and P1, probable early silo conversion and/or dismantlement activity has been seen since mid-April. The presence of housetrailers, an unidentified tank trailer, and a set of missile stage transporters at some of the sites probably indicated initial conversion or dismantlement activity.	
39. (TSR) At site K1, eight housetrailers have been seen parked along the site access road since  At site K2, three housetrailers have been seen parked within the site loop road since  Also at site K2, a set of SS-9 missile stage transporters has been seen parked near the housetrailers since  At sites K3, O1, O4, and P1, an unidentified tank trailer has been seen parked at the front of the silo headworks. A small area on the silo apron around the trailer was covered by a dark stain at all four sites. The tank trailer has been seen at sites K3, O1, and O4 since mid-April and at P1 since mid-May. This activity involving the tank trailer has not been seen at the test center before nor at any site at the former deployed SS-9 complexes.	25X1 25X1 25X1 25X1
40. (TSR) On two sets of type IIIF (SS-18) headworks sections were identified in the material receiving area of Space Launch Site U1/2. On two additional sets of headworks sections were identified. The presence of these sections and the probable early silo conversion and/or dismantlement activity suggests that preparations are being made to convert at least six SS-9 sites to SS-18 sites.	25X1 25X1
41. (TSR) On three sets of modified type IIIG (SS-19) headworks sections were first seen in the material receiving area of Support Facility 7. On two additional sets of headworks sections were identified in the same area, and on two more sets were identified for a total of seven sets of headworks sections in this area. Also, two sets of sections were first seen on in the material receiving area of the Central Support Facility. No construction activity or preparations for activity have been seen at any of the type IIIG launch sites or the older type IIID (SS-11) sites.	25X1 25X1 25X1 25X1
42. (TSR) A correlation between six ICBM launches from Tyuratam and their specific launchers was detected. Table 1 summarizes this launch activity.	
	25 <b>X</b> 1
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## Table 1. Tyuratam ICBM Launch Activity

	Launch Site	Observation	25 <b>X</b> 1
	V5	On imagery, heavy snow precluded the identification of a spent LAD	25 <b>X</b> 1
		On imagery the spent LAD was identified	25 <b>X</b> ′
	V7	On a propellant operation was underway; 2 MSPTs & 6 trucks were positioned at the open silo; 1 other MSPT was parked on the apron turnaround	25X <sup>2</sup>
		On the propellant operation continued with 1 MSPT & 6 trucks positioned at the open silo	25X
		On a spent LAD was in the usual onsite impact zone	25X
	R7N	On the silo apron was darkened; a spent LAD was in the usual onsite impact zone	25 <b>X</b>
	R7S	On at 0622Z, the silo door was closed & 2 van trailers were parked at the silo	25 <b>X</b>
		On the silo apron was darkened; a spent LAD was in the usual onsite impact zone	25 <b>X</b>
	R8	On the silo apron was darkened; a spent LAD was observed in the usual onsite impact zone	25 <b>X</b>
	S10	On a silo loader was positioned at the open silo; a canvas-covered mis- sile transporter was parked on the silo access road	25X
		On 3 MSPTs were parked on the silo access road; a cover was in the open silo; the propellant loading operation was not imaged	25X
		On the silo apron was darkened from the launch	25X 25X
		On a silo unloading operation was underway; an empty silo loader was positioned at the open silo & a spent & darkened canister was on a transporter nearby	25X
			25 <b>X</b>
Plesetsk			
ilo door and door pocket on the southeast ilo at launch site 28; components for an L	silo and the identifica CF at the Missile Ha	riod consisted of the installation of a type IIIH ation of a new silo component at the northwest andling Facility; checkout operations at launch fied at launch sites 14 and 22 have been canvas	•
ilo. At the northwest silo, a type IIIH silo They have remained on the apron. A he northwest silo on a new silo component was identified	ype IIIH silo door ar door and door pocket probable silo liner se the silo liner section l on the apron at the etween the silo liner a	on on the aprons of the two silos at and door pocket were installed on the southeast the were observed on the apron on imagery of extremely extracted by the gantry crane over that been installed in the silo. On imagery of extracted in the silo. On imagery of extracted the IIIH door pocket. The new component will be und the IIIH door pocket. The new component	25X 25X 25X 25X 25X 25X
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45. (TSR) LCF silo components were identified at the SMRA of the Missile Handling Facility on Components included three LCF headworks base components and six LCF headworks sections. Two type IIIH silo doors, two type IIIH door pockets, and three type IIIH silo liner segments were also observed at the SMRA during the reporting period.	25X1 25X1
46. (TSR) Silo checkout operations have been observed since at least at both silos of launch site 11. The checkout operation was apparently terminated by when both silo doors were closed	25X1 25X1
and all checkout vehicles had been removed from the site. During the checkout operation, the south silo door was observed open on The north silo door was observed open only on	25X1 25X1
47. (TSR) Numerous crates were observed at launch site 21 on and five to seven vehicles have been at the site security area since at least This site had been inactive since the termination of the SS-16 testing at the site in 1976. The activity may indicate that the site is being refurbished for future testing.	25X1 25X1
SEMIPALATINSK NWPG SHAGAN RIVER TEST AREA  48. (TSR) During this reporting period, activity continued at silo areas 23 and 89 and at a new	
vulnerability area where two new silos were under construction. Since late March 1980, a significant increase in the level of activity has been observed at the three areas. No calibration or vulnerability tests were conducted at the test area during the reporting period.	
49. (TSR) At silo area 23, modification continued to silo 5 (type IIIG/SS-11 Mod-2/-3) and what appears to be a general overhaul was started at silo 6 (type IIID/SS-11). At silo 5, the old IIIG headworks were removed from the silo in late March, and modified IIIG headworks were installed by late April. By the end of May, construction activity associated with the installation of the new door pocket and door was underway. Preparations for a vulnerability test against silo 5 were also underway. Prefabricated concrete blocks for an HE simulation structure were adjacent to the silo apron, and both small-diameter drill shafts (rosettas) and a large-diameter drill shaft had been or were being drilled near the silo. The preparations indicate that the test against silo 5 will be similar to the test conducted against silo 2 (type IIIG/SS-19) in September 1979.	
50. (TSR) At silo 6, the door was removed and excavation work was begun around the upper portion of the silo. The activity appeared, at least during the early stage, to be general overhauling. The silo was subjected to vulnerability tests in October 1974 and August 1976, which probably necessitated that the silo be overhauled before the next test. Test preparations involving an HE simulation structure and drill shafts were underway at the end of May. The simulation structure will apparently be an archroofed structure, similar to the one assembled for the test at silo 1 (launch control silo) in September 1979.	
51. (TSR) No activity was observed at silos 1, 2, 3, and 4 or at the small, non-missile silos 7, 8, and 9 during this reporting period.	
52. (TSR) At silo area 89, construction continued at silos 10 through 13, but no activity was observed at silo 14. The five silos have been identified as a type IIIF (silo 10), a launch control silo (silo 11), a type IIIG (silo 12), a modified type IIIH (silo 13), and a probable type IIIH (silo 14). The silos incorporated most of the modifications observed at the fourth-generation ICBM sites since 1974. By construction was in a late stage. The silo doors had been installed at silos 10, 12, and 13 and were ready to be installed at silo 11. The launch control support building adjacent to silo 11 was externally complete, and the underground passageway from the building to the silo was nearly complete. Approximately two months of construction remain at silos 10 through 13. Six to eight months remain at silo 14 when construction starts again. The instrumentation bunkers near each silo were still in an early stage of construction. No activity was observed at the 30-meter-diameter excavation or at the triple-fence secured, partially underground structure.	25 <b>X</b> 1 25 <b>X</b> 1
53. (TSR) The new vulnerability area, designated area 108, is about 8 kilometers (km) northwest of silo area 23 and about 10 km northwest of silo area 89. By the end of May, the main features of the area consisted of two silo corings and a large linear trench. At this time, the identification of the types of silos and the function of the trench were not known.	
54. (TSR) The larger of the two silo corings has a facing diameter of The depth of the silo headworks area is The inner silo diameter at the ledge is Nine probable silo wall segments, each long, and a possible silo base were adjacent to the coring on The smaller silo has a facing diameter of No provision for a silo headworks area was observed. In early May, the depth of the silo coring was	25X1 25X1 25X1 25X1 25X1

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## **DEFENSIVE MISSILE ACTIVITY**

## Sary-Shagan Missile Test Center

Launch Complex B	•
55. (TSR) During this reporting period, Complex B was observed 22 times (19 complete and three partial coverages). A GALOSH ABM canister was engaged in the launcher at launch position C1 between A canister was also engaged in the launcher at launch	25 <b>.</b> X1
position C2 between and at launch position C3 on and again between Also on a GALOSH ABM canister with prime mover was next to launch position C3. No activity was observed at launch silo C4 during the reporting period.	25X1 25X1
56. (TSR) A missile exercise was observed at launch silo C5. The top of a probable missile canister was observed inside the silo on a CAN/CAP silo loader was backed up to the closed silo door. When the silo was observed from an environmental cover was over the aperture; the exhaust deflector ring was on the silo apron on all coverages during the reporting period.	25X1 25X1
57. (TSR) At Launch Facility B, construction was continuing on two possible fueling points.	
Launch Complex D	
58. (TSR) Launch Complex D was observed 13 times (nine complete and four partial coverages). At Complex D, the sliding shelter on the B-1 building, the probable laser facility, was closed each time it was imaged. Throughout this reporting period, the inflatable cover over the radome at the EGG HEAD radar remained deflated, showing the longitudinal ribbing on the radome. On the coverages which included the American deck water coolers, no vapors were observed.	•
Launch Complex F	
59. (TSR) Launch Complex F was observed 26 times (ten complete and 16 partial coverages). At silo 3B, a silo-loading exercise was observed on A probable SH-08 ABM canister was on a probable CAN/CAP silo loader aligned with the open silo. Also, on a probable ABM transporter (possibly present on was on the central access road of old launch site 3. On the silo door was closed and no equipment was on the service apron. On a probable MAZ-543 crane was at the open silo.	25X11 25X1 25X1 25X1 25X1
60. (TSR) At the new aboveground launch position, 3D, a launch tube was observed on the ground on the launch tube had been emplaced in the vertical arms of the launcher mechanism. By concrete paving blocks had been laid for the servicing apron and the access road to the launch tube, and the launch position appeared to be operational.	25X1 25X1
Operations Support Base	
61. (TSR) The Operations Support Base was observed 30 times (16 complete and 14 partial coverages). From ten to 11 GALOSH canisters were observed at the servicing apron in the Explosives and Solid Propellant Handling Facility. Since an additional GALOSH canister has been at the main hangar of the airfield for a total of four at that location. On a probable ABM transporter was adjacent to the main hangar. This transporter appeared to be the same type observed at Launch Complex F on 62. (TSR) On at Liquid Propellant and Handling Facility B, the new ribbed ABM canister	25X1 25X1 25X1 25X1
62. (TSR) On at Liquid Propellant and Handling Facility B, the new ribbed ABM canister was on a six-axle transporter. This ABM canister type has been associated with ABM silo launches from Launch Complex B.	25X1 -
R&D Radar Facilities 1, 2, and 3	
63. (TSR) R&D Radar Facilities 1, 2, and 3 were completely or partially observed seven times during the reporting period.	•
64. (TSR) Significant activity was observed at Radar Facility 1 (commonly referred to as the Lazy L radar). On a new SQUARE PAIR radar was on a hardstand north of the receiver antenna. The SQUARE PAIR radar was not present on A possible clutter screen, previously referred to as an unidentified structure about 810 meters in front of the radar, was about 70 percent complete on	25X1 25X1 25X1
65. (TSR) No significant activity was observed at R&D Radar Facilities 2 and 3 during the reporting period.	
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## **R&D** Complex

66. (TSR) The Sary-Shagan R&D Complex, Facility A, was imaged 25 times during the reporting period. The dome on the south building was over the coelostat on all coverages. The cooling system was filled, checked out, and purged during late April. Apparently, construction on the north building (approximatey 90 percent externally complete) has been terminated. No construction equipment or personnel were imaged at the facility during the reporting period. Heavy rainfall during early-to-mid May has probably created a serious water problem within the north building. Water was standing midway up the drive-in ramp on the north end of the building during late May, and no pumping activity has been observed.

	 ŷ,	-g morrity mas seen	observed:	
				25X1
Moscow ABM Facilities				

70. (TSR) The 32 dismantled launchers at the deployed ABM launch complexes were still inopera-	
tive as of The cabletrays from the TRY ADD radar buildings to the launch positions at Launch	25X1
Complex E33 remained intact; however, the junction boxes were still uncovered. Dismantled launcher	
components—including base plates, launcher arms, and rings—remain in the housing and support facili-	
ties at Launch Complexes E05, E24, and E33; they have not been identified in the Launch Complex F31	
housing and support facility. A new structure was under construction in the operations support area of	
Launch Complex E05 on	25X1

Launch Complex	Date Observed	Launch Positions Observed	GALOSH Canister Engaged	Launchers Dismantled	
E05		16	8	8	25 <b>X</b> 1
		3	1	2	
		16	7	8	
		16	8	8	
E24		16	6	8	
		16	6	8	
		16	6	8	
		16	5	8	
		16	6	8	
E31		16	6	8	
		9	3.	5	
		11	6	3	
E33		16	7	8	
		2	_	2	
		3	2/3	1	
		16	7	8	

71. (TSR)	The Borovsk ABM Sup	port Facility was	observed four times. Forty-seven GALOSH canisters	
were present on		and 45 on	Construction was progressing slowly on the	225X1
building across f	from the new clerestory b	uilding.		

72. (TSR) The Moscow SAM and ABM Training Facility was observed nine times. No GALOSH ABM canisters were engaged in the launcher on any of these occasions.

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73. (TSR) The DOG HOUSE and CAT HOUSE battle management radar facilities were observed three times and two times, respectively, during the reporting period. No significant activity was observed at either facility.

## **Deployed ABM-Related Radars**

74. (TSR) The Pechora Phased-Array Radar Facility was observed 14 times during the reporting period. A possible beam forming/side lobe suppression device was in an early stage of construction on both sides of the transmitting antenna on The device, first observed under construction on presently consists of two parallel rows of buried concrete blocks on each side of the antenna with a vertical support in the center of each block. The suggested function of the device was based on its location and the presence of a triangular lattice structure on the ground near the rows of buried concrete blocks. The device originates at the face of the transmitting antenna and extends from the antenna base at about a 30-degree angle. When complete, these triangular lattice structures will probably support some type of beam forming/side lobe suppression device.	25X1 <sub>1</sub> 25X1
75. (TSR) Additionally, the surface panels on the face of the transmitting and receiving antennas at the Pechora Phased-Array Radar Facility appeared to have been replaced between  76. (TSR) The Lyaki Phased-Array Radar Facility was completely or partially observed three times during the reporting period. The previously reported SA-3 SAM site, Geokchay SAM Site B02-3 (BE will be a permanent site, as indicated by the construction of four revetted launch positions, an excavation for a central guidance-control area, and the presence of arch-roofed concrete bunker sections.	25X1 25X1 25X1
77. (TSR) The Sary-Shagan HEN HOUSE Radar Facility was not imaged during this reporting period. However, the previously reported SA-5 SAM site, Balkhash SAM Site B25-5 was complete and occupied.	25 <b>X</b> 1
78. (TSR) The Mishelevka, Mukachevo, Sevastapol, and Olenegorsk HEN HOUSE Radar Facilities were imaged two, three, seven, and four times, respectively. No significant activity was observed at any of these radar facilities.  79. (TSR) The Sary-Shagan Phased-Array Radar North and the Skrunda HEN HOUSE Radar	•
Facility were not imaged during the reporting period.	

# Submarine-Launched Ballistic Missiles

## SUBMARINE-LAUNCHED BALLISTIC MISSILES

## **Submarine Production**

## **Delta-Series SSBN Construction**

80. (TSR) Usable coverage of the Severodvinsk complex was obtained on 41 occasions during this reporting period.	
81. (TSR) Fitting-out of D-III SSBN unit 11 was continuing along the quay through at least The late stages of fitting-out were observed on when the scaffolding had been removed from atop the sail. On the covers had been removed from the two forwardmost missile tubes, and on the covers had been removed from the entire missile bay. By the submarine had been moved to the deperming pier, a move which has previously indicated that sea trials should occur in the immediate future. Between the submarine was again alongside the main quay, and appeared to be ready for sea.	25X1 25X1 25X1 25X1 25X1 25X1
82. (TSR) Initial launch preparations were observed along launch rail D by when snow and ice had been cleared from the rail. By 12 flotation device supports, which were used during the launching of D-III SSBN unit 11 from launch rail C, had been aligned along each side of launch rail D. The rollout of a submarine, probably D-III SSBN unit 12, was believed to be imminent by when snow and ice had again been cleared from launch rail D. By however, the flotation device supports had been moved directly onto launch rails C and D. On snow and ice was being cleared along each side of launch rail D, and by the flotation device supports had been realigned along launch rail D. The area again appeared to be ready for the rollout of a submarine. On a probable railroad track cleaner was operating on the northernmost tracks of launch rail D. By however, the barge with the flotation devices had been moved to the east quay, suggesting that the rollout of D-III SSBN unit 12 might be further delayed. By the barge with the flotation devices had been moved to the quay at the calibration facility near the basin gate; by cables had been strung from the winch house to the doors of construction hall 1, indicating that the rollout of D-III SSBN unit 12 was finally rolled out of construction hall 1 on launch rail D between The sail and missile-bay area of the submarine were covered in the same manner as on previous launches, precluding analysis of any possible change in the size and number of missile tubes.	25X1 25X1 25X1 25X1 25X1 25X1 25X1 25X1
83. (TSR) Numerous pieces of submarine outer-hull plating and components were observed throughout the shipyard during the reporting period. Other than the highly reflective outer-hull plating in the vicinity of construction hall 2 which is associated with the A-class SSN program, the outer-hull sections and hull plating cannot be identified with a particular submarine construction program. On a probable D-series, missile-bay walking deck section with four cutouts was on the rail line in the staging area behind construction hall 1, and on possible submarine bulkhead with a diameter of approximately meters was observed on the loading rail leading into construction hall 1. A high count of probably six submarine pressure-hull sections was observed beneath the staging sheds behind construction hall 1 during this reporting period.	25X1 25X1 25X1
New-Series SSBN Construction	
84. (TSR) The long awaited launch of the Typhoon SSBN was believed to be forthcoming when an operational test of the launch dock was observed outside the launch basin alongside the pillar-supported platforms adjacent to the deperming pier. By the launch dock had been repositioned in front of construction hall 3, where launch preparations were continuing through By a large, new-class submarine (NPIC interim designator 402U) had been rolled out of construction hall 3 on launch rail 1. Analysis of all available imagery since indicates that this submarine is an SSGN and not the Typhoon SSBN, which is under construction in hall 3.	25X1 25X1 25X1
85. (TSR) Two hull sections and an unidentified component were underneath the rigid framework behind construction hall 3 during most of the reporting period. On	25X1 25X1 25X1 25X1 25X1 25X1
analysis of hull sections and components associated with construction hall 3 and fabrication building 2 will be severely limited. On two probable missile tube covers were on railcars near the staging area adjacent to fabrication building 1. The covers were approximately and were similar in shape to previously identified new-type missile tube covers which are believed to be associated with the Typhoon construction program. On railcar, similar to the railcar associated with launch facility D at Nenoksa Naval Missile Test Center was on the rail	25X1 25X1 25X1 25X1
spur leading into the southeast end of construction hall 3. The observation of this railcar adjacent to construction hall 3 further substantiates the belief that at least one and possibly two Typhoon SSBN remain under construction in construction hall 3.	25X1

25X1

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## Severodvinsk Construction Activity

86. (TSR) Numerous construction projects were ongoing at the complex during this reporting period. In addition to the continuation of previously reported projects, construction of two support buildings near construction hall 2 and excavation for a construction site behind fabrication building 2 were begun during this period. Possible new berthing facilities were under construction at the northeast end of the complex across the inlet from the powerplant.

## **SSBN** Dismantlements

- 87. (TSR) Y-class SSBNs. Y-class submarine units 1 and 2 remained at the main quay at Shipyard Yagry Island throughout this reporting period. Some minor topside activity was observed on the sail and in the area of the VLF buoy housing. A Zeya YRSN was outboard the submarines for much of the reporting period; however, no reactor work or major reconstruction activity was observed. Unit 4 of the dismantled submarines remained at the main fitting-out quay at Shipyard 402 throughout this reporting period. Several pieces of outer-hull plating have been removed, and the pressure hull was penetrated over the reactors. Unidentified reactor work and topside activity was continuing at the end of this reporting period. This is the only one of the four dismantled units on which substantial postdismantlement work has begun.
- 88. (TSR) The dismantled Y-class submarine unit 3 remained on the open repairway adjacent to repair hall 1 at Petrovka Naval Base and Shipyard throughout the reporting period. The bow and stern sections were still not joined, and no significant topside activity was observed.

## SSBN Overhauls

- 89. (TSR) **D-class SSBNs**. Overhaul and refueling of the two D-1 SSBNs placed inside the repair halls at Shipyard Yagry Island in December 1979 and February 1980 was continuing during the reporting period.
- 90. (TSR) Y-class SSBNs. Two Y-I SSBNs remained in overhaul inside the repair hall at Shipyard Yagry Island. These units have been in the repair hall since May 1979 and January 1980, respectively. Postoverhaul fitting-out of the Y-I SSBN that was removed from the repair hall between 25X1 was continuing. On \_\_\_\_\_ this submarine was in the stream near the deperm-25X1 ing pier at Shipyard 402, indicating that the submarine was in the late stage of overhaul, although actual deperming was not observed. Between the Y-I SSBN departed the Severodvinsk complex 25X1 for sea trials/redeployment to its North Fleet operating base. 91. (TSR) At least two and possibly three Y-I SSBNs were in various stages of overhaul/refueling at Petrovka. The Y-I SSBN which entered the repair hall between 25X1 was removed from This unit had occupied the north set of rails in the repair hall. Since the hall between 25X1 its removal, this unit has been berthed at the slanted pier, for postoverhaul fitting-out. The Y-I SSBN which entered the repair hall between remained inside the hall. 25X1 the RAP for this unit was moved from the open storage area to the quay. 25X1 The Y-I SSBN which arrived at the slanted pier in December is still there. No significant topside activity has been observed on this unit. Between this unit was placed in an ARD(T). The 25X1 bow and stern of this submarine have scaffolding around them. 92. (TSR) The Y-I SSBN which entered the covered ARD(D) at Petropavlovsk K Shipyard Seldareturned to Petropavlovsk K Shipyard and Naval Base Seldavaya Bay 25X1 vaya Bay East on , where it remained adjacent to a 199C YRSN. 25X1 bv 93. (TSR) H-class SSBN. An H-II-class SSBN entered the open ARD(D) at Petropavlovsk K Shipyard Seldavaya Bay East by and remained throughout the reporting period. Scaffolding 25X1 has been placed along the entire length of the submarine, and all three missile tube doors were open from 25X1 94. (TSR) The H-II SSBN that was believed to be at Pala Guba for refueling in December 1979 has departed the base. No significant change has taken place on the H-II SSBN which has been at Rosta since March 1978. Tunneling
- 95. (TSR) At Ara Guba and Sayda Guba, the concrete supporting structures for the entrances to the two main tunnels appeared to be complete. The smaller access tunnel appeared to be serviceable. A concrete retaining wall has been built between the shoreline and the entrance to the main tunnel. Behind the retaining wall, the tunnel was being excavated below sea level.
- 96. (TSR) No significant activity was observed at the tunnel under construction at Strelok Strait Submarine Base Pavlovskogo Bay. Construction continued at a slow pace.

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## **SLBM Test Centers**

## Nenoksa Naval Missile Test Centers

97. (TSR) Launch Facilities B and C. No change or activity was observed at either launch facility during the reporting period.	
98. (TSR) Launch Facility D. Missile-related activity was observed at the facility in connection with	
	25 <b>X</b> 1
99. (TSR) On two possible personnel hoists were near the launch tube. On two sets of personnel work platforms were near the launch tube. They were no longer observed on	25 <b>X</b> 1 25 <b>X</b> 1
100. (TSR) By the launch tube cover (formerly the front cover section of the erector/-loader) had been removed from over the launch tube. On the two cover sections remained over the erector/loader, but there had been traffic on the rail spur up to the erector/loader and to the east side of	25X1 25X1
the launch building between the top of the launch building was clear of all objects, and the mobile crane and cover sections had been moved into the support area south of the site. Two flatcars and a shunting engine were on the rail line north of the site. The objects on the cars	25 <b>X</b> 1
included two personnel hoists. On posttest imagery of the launch tube cap was completely visible, and the two flatcars had been moved farther north away from the site.	25 <b>X</b> 1
the launch tube cover was again over the launch tube, and on the erector/loader was elevated. On the two sections of the cover were back over the erector/loader, and a possible personnel hoist was on the launch building on This activity was similar to that observed in February after the first test launch. On a personnel hoist was on a flatcar on the rail spur east of the launch building; on the flatcar was gone. The mobile crane remained near the launch tube. The launch tube and the erector/loader remained covered.	25X1 25X1 25X1 25X1 25X1
Balaklava Missile Test Center	
102. (TSR) Balaklava Submarine Base was covered eight times by interpretable imagery between SLBM-related activity was observed in the movement of the Golf V SSB and at the SLBM popup barge (platform 8). The Golf V was present on but by it had moved to a position southwest of the base. The submarine was back at the base on submarine was again southwest of the base and had not returned by	25X1 25X1 25X1 25X1 25X1
103. (TSR) A possible work platform was on the SLBM popup barge on the barge was moved farther south along the quay, and a mobile crane was over the area where the platform had been observed. On the crane was gone and the possible platform was no longer observed.	25X1 25X1
104. (TSR) Expansion of instrumentation site 2 was observed on A building was under construction, and holes for footings for possibly two other buildings were being dug. Construction continued through	25X1 25X1
105. (TSR) Between the SLBM popup barge was moved to Sevastopol Shipyard Sevmorzavod 497. The barge was last observed at Balaklava Submarine Base on An older SLBM popup barge (platform 5) and the cruise missile popup barge were also present. Between another SLBM popup barge (platform 6) was taken to Sevastopol and was later dismantled.	25X1 25X1 25X1 25X1
	25 <b>X</b> 1

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Cruise	Missiles	

# SECTION 3 25X1

## CRUISE MISSILE DEVELOPMENT

## **Testing**

106. (TSR) Cruise missile activity at Nenoksa Naval Missile Test Center was observed at Launch Facility	
A and in the cruise missile checkout area. On canisters in the cruise missile	25X1
checkout area were aligned near the high-bay building. By the SS-NX-19 crates in the area had been	25X1
moved along the fence. Between three additional SS-NX-19 crates arrived in the checkout area.	25X1
On the line of canisters appeared to be covered and they could no longer be counted. Also on	25X1
a long cruise missile airframe on a dolly, a truck, and a mobile crane were approximately 0.5 km east	25X1
of Launch Facility A heading toward the facility. On the mobile crane was next to the SS-NX-19	25 <b>X</b> 1
loading tray on the east side of launcher A-1. On one of the SS-NX-19 crates was missing from the	25X1
cruise missile checkout area. By the crate had returned and a missile dolly was also present. By	25X1
at Launch Facility A, the mobile crane and the loading tray were moved to the west side of launcher A-2.	25X1
Between three SS-NX-19 crates were removed from the cruise missile checkout area. Between	25X1
the loading tray was moved to the east side of launcher A-1.	25X1
107. (TSR) Cruise missile activity was observed at Severodvinsk Shipyard 402, where a new class of	
cruise missile submarine (NPIC interim designator 402U) was launched between	25X1
an SS-NX-19 loading tray was observed on the quay near the new submarine. By a second SS-	25X1
NX-19 loading tray had arrived. On one of the loading trays was mounted over a portside launch	25X1
tube on the 402U. The popup testing of the SS-NX-19 was accomplished at Balaklava Missile Test Center.	_0,
·······································	
108. (TSR) Activity associated with cruise missile testing was observed at Balaklava Missile Test Center in the cruise missile storage area. A new building (previously referred to as a drivethrough storage	
bunker) had been completed by Between two and one	05.74
meter crates were moved away from the fence, and two SS-N-2 crates were also moved. At the Balaklava	25 <b>X</b> 1
Submarine Base, the SS-NX-19 loading tray had been moved adjacent to the support building at the quay	
by The cruise missile popup barge was turned ninety degrees between	25X1
	23/1
109. (TSR) A cruise missile transfer operation was observed at Chernomorskoye Missile Test and	05)//
Evaluation Facility on An unidentified cruise missile airframe, long, was being trans-	25 <b>X</b> 1
ferred from a missile canister/crate to a loading tray. A missile tube cap on the canvas-covered launcher	05)/4
was open. On a possible loading tray was protruding from the end of the launch tube.	25 <b>X</b> 1
110. (TSR) Imagery of of Leningrad Weapons Test Facility 3 revealed further evidence	25X1
that the testing of a probable modified version of the SS-N-12 has ceased. On only one SS-N-12	25 <b>X</b> ′
crate remained in the facility, and the captive fire test stand was no longer observed. The test stand had	
been at this facility since early 1974 and had been associated with the SS-N-12 program since June 1969.	
This probable modified SS-N-12 had been undergoing tests since late 1976.	

## Other Missile Activity

111. (TSR) Construction activity at Feodosiya Naval Missile Support Facility continued during the reporting period. The new high-bay checkout building is externally complete, but work continued inside the building. This construction may be associated with a new or modified cruise missile system.

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## **Long-Range Aviation**

25X1

SECTION 4

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## LONG-RANGE AVIATION

112. (TSR) This portion of the report summarizes SAL-related Soviet air activity. It includes a brief description of unusual BACKFIRE, BEAR, and BISON aircraft activity, as well as tables showing the locations and counts of these aircraft on the dates imaged. All but one (Kirovskoye Airfield) SAL-associated Soviet LRA and SNA bases; all relevant aircraft production facilities; Akhtubinsk FTC; Ramenskoye FTC; Novosibirsk Scientific Institute of Aviation (SIBNIA); and eight of the nine Soviet Arctic staging bases capable of supporting BACKFIRE were imaged during this reporting period.

## **BACKFIRE** Aircraft Activity

## Production and Flight Test Center Activity

113. (TSR) At Kazan Airframe Plant Gorbunov 22, a high count of 17 BACKFIRE B, including six modified units, was seen on imagery of Only 14 BACKFIRE B, including five modified units, were observed on later imagery of the last acquisition during this reporting period. A high count of six modified BACKFIRE B was first reported during the previous reporting period. On same-day coverage of the production plant, Akhtubinsk FTC, and Ramenskoye FTC revealed a new high count of eight modified units—one each at Akhtubinsk FTC and Ramenskoye FTC, and six at the plant. (This new total does not include the modified unit that burned at Ramenskoye in 1978.) This higher number indicates that an additional modified unit may have been produced at the plant between during which time image quality was poor and it was not possible to distinguish between the modified and standard models of BACKFIRE B. Further, the modified BACKFIRE B that was observed at Akhtubinsk FTC for the first time in December 1979 probably came from Kazan, which would account for the fact that only five modified versions were observed at the plant when high-quality imagery again became available in January. During the current period, coverage of the production facility had been intermittent (eight coverages in three months) and monitoring the program had become much more difficult.	25X1 25X1 25X1 25X1 25X1 25X1
114. (TSR) At Akhtubinsk FTC, a BACKFIRE B with a airframe mounted under the port wing was at the area airfield for the first time on imagery of This airframe had previously been seen only at Ramenskoye FTC. A probable checkout van/trailer was adjacent to the	25X1 25X1
BACKFIRE B with the	25X1 25X1 25X1 25X1
115. (TSR) The high count of six BACKFIRE B at Ramenskoye FTC during this reporting period included one modified version. Six BACKFIRE B were seen here from and the one modified BACKFIRE B was last seen at this facility on The BACKFIRE B with the wingmounted airframe was here on This BACKFIRE B and one other possibly associated BACKFIRE B were not seen on imagery or on subsequent imagery during this reporting period. One BACKFIRE B was in the New Test, Derelict, and Central Test Area on Historically, aircraft that have been moved to this area have seldom been returned to the flightline.	25X1 25X1 25X1 25X1 25X1
Long-Range Aviation Activity	
and generally continued during the reporting period. Fifteen BACKFIRE B were present on and 14 were seen in cloud-free areas on the last coverage during this period. Low counts of seven and nine BACKFIRE B on resulted from the deployment of BACKFIRE B aircraft to Dolon Airfield, where ten were seen on and eight on	25X1 25X1 25X1 25X1
117. (TSR) Poltava Airfield (Southwest Bomber Command) was imaged at least once during each month of this reporting period. A high count of 19 BACKFIRE B was seen four times when complete coverage was acquired in March and in May, and a low count of ten was seen on cloud-degraded imagery of BACKFIRE were not seen in the newly constructed maintenance building in the dispersal area, and there were no indications of any further construction of this type of building in the BACKFIRE areas. On imagery of the presence of GSE adjacent to 12 BACKFIRE B in the dispersal area indicated a probable flight exercise, although at the time of imagery, 19 BACKFIRE B were present.	25X1 25X1
118. (TSR) At Soltsy Airfield (Northwest Bomber Command), the count of BACKFIRE B has now stabilized at 20. This number was seen once in March, three times in April, and twice in May, including the latest imagery of Also on the imagery, three AS-4 (KITCHEN) ASM were in front of BACK-FIRE, and one additional AS-4 was being transported toward the main BACKFIRE parking area. A second environmental maintenance shelter was observed under construction on and will be the same type as that previously constructed here during the September—November 1979 reporting period. No change has been observed in the partially dismantled CLEAT.	25X1 25X <sup>2</sup>

119. (TSR) The count of BACKFIRE at Ryazan/Dyagilevo Airfield, the LRA training base, has returned to the previous normal count of five BACKFIRE A and three B, including the one BACKFIRE B that sustained damage to the right wing. This BACKFIRE was still present on the latest imagery of this installation, with the right wing removed.	25 <b>X</b> 1
Soviet Naval Aviation Activity	
120. (TSR) The count of BACKFIRE B at Bykhov Airfield (Baltic Sea Fleet Air Force) has stabilized at 36, the previously reported high count. On imagery of four wing pylon shipping containers were identified for the first time in one of the hardstands being used for open storage. These pylons will be attached to the under portion of the wing glove to support wing-mounted AS-4 (KITCHEN) missiles. Wing-mounted AS-4 missiles have not been identified on BACKFIRE B at this base but have been seen on BACKFIRE B at Oktyabrskoye Airfield.	25X1
121. (TSR) At Oktyabrskoye Airfield (Black Sea Fleet Air Force), SNA BACKFIRE B were seen for the first time with wing-mounted AS-4 (KITCHEN) missiles. Prior to this identification, SNA BACKFIRE B were assessed as carrying one AS-4 missile belly-mounted under the centerline portion of the fuselage. On imagery of three BACKFIRE B were seen with wing-mounted AS-4 missiles. One additional AS-4 missile was on a dolly in the dispersal area. On an ASM exercise involving BACKFIRE B and BADGER C Mod was observed. Three BACKFIRE B with wing-mounted AS-4 were in the BACKFIRE dispersal area, and six AS-5 (KELT) were in the BADGER dispersal area. The count of BACKFIRE B at this base remains at 17.	25X1 25X1
122. (TSR) Seven BACKFIRE B were at Nikolayev/Kulbakino Airfield, the SNA training base, on Six were at the airfield and one was seen for the first time in the BEAR/BADGER repair facility. This total of seven BACKFIRE B was the highest number ever seen at this installation.	25 <b>X</b> 1
Other BACKFIRE Activity	
123. (TSR) Onten and eight BACKFIRE B were at Dolon Airfield, a BEAR A/B/C installation in the Far East Bomber Command. These aircraft probably came from Belaya Airfield, a BACKFIRE base in the Far East Bomber Command. On these corresponding dates, seven and nine BACKFIRE B were missing from the dispersal area at Belaya Airfield.	25X1
124. (TSR) There were no changes in the status of the static display BACKFIRE A at Irkutsk Airfield Southeast or at Moscow/Monino Airfield.	•
125. (TSR) BACKFIRE were not observed at the Arctic staging bases that were imaged during this reporting period. Ostrov-Greem Bell Airfield was not imaged; Koshka-Yavr Airfield was partially imaged; and imagery was acquired of the remaining seven bases: Anadyr/Ugolnyye Kopi Airfield, Markovo Airfield, Olenegorsk Airfield, Tiksi West Airfield, Umbozero Airfield South, Vorkuta Airfield East, and Yakutsk/Magan Airfield.	•
126. (TSR) The first identification of AS-4 (KITCHEN) shipping containers at one of the ASM Support Facilities at Alekseyevka Airfield, an SNA base in the Pacific Fleet Air Force area, may be an indication of pending BACKFIRE deployment to this base. Twelve shipping containers were identified here for the first time at ASM Support Facility 2 on Alekseyevka Airfield supports a BEAR F unit and two BADGER ASM regiments. Concurrently with the arrival of the AS-4 shipping containers, hardstands in one of the BADGER dispersal areas were being renovated, possibly to support aircraft other than those presently seen here.	25X1
127. (TSR) Hardstand construction and modifications to Ostrov-Gorokhovka Airfield were continuing. Incomplete and cloud-degraded imagery of this area precluded a status report for each of the hardstand areas, but cloud-free portions of imagery did reveal that construction was in progress. No BACKFIRE or related GSE have been seen at this SNA airfield.	
BEAR Aircraft Activity	
Long-Range Aviation Activity	
128. (TSR) At Dolon Airfield (Far East Bomber Command), the BEAR A and the BEAR B/C regiments were seen at normal strengths throughout this reporting period. On six BEAR B/C were seen with belly-mounted AS-3 missiles. This was the largest number of aircraft seen with missiles during this period. On ten BACKFIRE B were at this airfield, and on eight were seen. BACKFIRE B are not usually at this BEAR base. These aircraft probably came from Belaya Airfield, a BACKFIRE base in the Far Fast Bomber Command. In addition to the BEAR, two probable BISON tankers were present during this period.	25X1 25X1
129. (TSR) The BEAR B/C regiment at Mozdok Airfield (Southwest Bomber Command) was observed at normal strength throughout this reporting period. Twenty-one BEAR B/C are usually here. Twenty were seen on the earliest imagery during this period, and 16 were observed through scattered clouds on	25X1 25X1
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130. (TSR) Uzin-Chepelevka Airfield (Southwest Bomber Command) which supports a BEAR A and a BEAR B/C regiment was imaged once during this period. Only 25 of the 36 BEAR A/B/C normally here could be seen through scattered clouds. A probable ASM exercise included two AS-3 (KANGAROO) in front of two BEAR B/C and one additional AS-3 being towed on a dolly. Fifteen other AS-3 were parked on the ASM parking apron.

Soviet	Naval	Aviation	Activity

Soviet Naval Aviation Activity	
131. (TSR) One BEAR F variant was seen at Severomorsk Airfield (Northern Fleet Air Force) throughout this period. The modification to this variant consisted of a dorsal-mounted, teardrop-shaped blister, and a forward-pointing vertical stabilizer tip pod. In addition, this BEAR F did not have horizontal stabilizer tip pods that are common to the BEAR F.	
132. (TSR) At Kipelevo Airfield (Northern Fleet Air Force), the BEAR D reconnaissance regiment and the BEAR F ASW regiment were seen at near normal strength during this period. Ten to 14 of the BEAR F with the rear-pointing vertical stabilizer tip pod modification were present throughout this period. A total of 44 BEAR D/F was observed on and a high count of 46 was imaged on	25X1
133. (TSR) The BEAR D reconnaissance regiment at Khorol East Airfield (Pacific Fleet Air Force) was observed at normal strength throughout this period. One BEAR D without the forward portion of the fuselage was imaged onand on all subsequent coverages through	25 <b>X</b> 1
134. (TSR) At Alekseyevka Airfield (Pacific Fleet Air Force), the BEAR F ASW unit was observed at its normal strength of 14 throughout this period with the exception of when seven were seen on complete coverage.	25X1
135. (TSR) Kirovskoye Airfield (Black Sea Fleet Air Force) was not imaged during this reporting period.	
Other BEAR Activity	
136. (TSR) One BEAR C, one BEAR C Modified, and one BEAR F variant were seen at Akhtubinsk FTC throughout this reporting period. The BEAR C Modified was observed with two tandem, belly-mounted AS-4 (KITCHEN) missiles.	
137. (TSR) As many as seven BEAR A/B/C were seen at the repair facility at Belaya/Tserkov Airfield during this reporting period. This is considered normal.	
138. (TSR) BEAR D and BEAR F were seen in normal strength at Nikolayev/Kulbakino Airfield, the SNA training base, and at the associated BEAR/BADGER repair facility.	
139. (TSR) One to two BEAR A and two to four BEAR F were seen at Ramenskoye FTC during this reporting period. The presence of these aircraft is usual for this installation.	
140. (TSR) At Kuybyshev Airframe Plant Lenin 18, a BEAR C Modified was seen for the first time on imagery of Same-day coverage of Akhtubinsk FTC confirmed that a total of two BEAR C Modified had been identified.	25 <b>X</b> 1
141. (TSR) As many as 11 BEAR A were at Ukraina Airfield, a BISON base, between  BEAR are not usually here. Also, between as many as six BEAR B/C were at Engels Airfield, a BISON base in the Northwest Bomber Command. BEAR are not usually at this base.	25X1 25X1
142. (TSR) A low count of two BEAR F was seen at Taganrog Airframe Plant Dimitrov 86 on Four BEAR F were here on all imagery in May. On a new BEAR F variant configured with a tail extension/pod that is similar to the tail cone on the BEAR C Modified was identified.	25X1 25X1
143. (TSR) There was no change in the status of the static display BEAR at Irkutsk Airfield Southeast, Moscow/Monino Airfield, or Voroshilovgrad Airfield Southeast.	
BISON Aircraft Activity	
144. (TSR) No further evidence of BISON disassembly was observed at either Engels Airfield or at Ukraina Airfield during this reporting period.	
145. (TSR) At Engels Airfield (Northwest Bomber Command), the heavy bomber regiments were seen in normal strengths throughout this period. Eight BISON A, seven BISON B without refueling probes, 20 BISON B with refueling probes, and three BISON C are usually seen here. A low count of BISON occurred on when 32 were present. Also, between from two to six BEAR were observed. BEAR are not usually seen here.	25 <b>X</b> 1
146. (TSR) The BISON heavy bomber regiments at Ukraina Airfield (Far East Bomber Command) were seen in usual strengths. On imagery ofone BISON B without refueling probe was seen with its tail assembly removed. By the tail assembly had been replaced. On one BISON B	25X1 25X1
with refueling probe was undergoing structural repair to the right wing. A wing panel was on the ground next to the right wing of this aircraft. Imagery of revealed that the right wing of this BISON had been removed. By the right wing had been replaced, and the other outer-wing panel remained on the ground nearby until when it was moved into a storage area on the support side of the airfield. Between as many as 11 BEAR were present. BEAR are not usually at this base.	25X1 25X1 25X1 25X1 25X1

six hardstands in the southeastern section had been paved along with a section of dispersal taxiway. At least 16 other old revetments were in this area. Portions of the previously reported derelict BISON A and disassembled BISON B were still discernible.	25X1
Other BISON Activity	
147. (TSR) At Ryazan/Dyagilevo Airfield, the LRA training base, a high count of 12 BISON was observed on imagery of Eight were BISON A and were lined up along the parallel taxiway. Normally, two BISON A/B are in the parking area, and from two to three BISON fuselages are in the repair facility.	25X1
148. (TSR) Two BISON A (probable tankers) and two BISON B (without refueling probes) were seen at Dolon Airfield during this reporting period. The presence of these aircraft was considered normal.	
149. (TSR) At Ramenskoye FTC, three BISON with refueling probes and one BISON C were seen consistently during this reporting period. This is considered normal. On imagery of a BISON B was observed with its wing flaps removed. On imagery of one wing had been removed from the BISON, and by both wings had been removed. Imagery of revealed that this BISON had been moved to the same location where other BISON had been disassembled. No further disassembly of the BISON was observed during the remainder of this reporting period.	25X1 25X1 25X1 225X1

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			_	DAT	E	/cov	ERAGE		ACKF		_				BEAR				$\angle$			SON	/
NSTALLATION/FACILITY	/N/0	Mo.	H.Mo.	848/53	PA LETE	4 141	/_	ZW)	A CERMINE	02/ 8	/0	/0	/4	/,	//	UNDETERM	OJMEO /		MIO PROPE	30 M/ 08E	.//	UNDETERMINED	REMARKS
azan Airframe ant Gorbunov 22				×			17														[		Includes 6 BACKFIRE B Mod
ant doibanov 22					×		9																Very low visibility precluded accurate count
				x			15																Includes 6 confirmed BACKFIRE B Mod
				×			13										T	T	İ				Includes at least 5 BACKFIRE B Mod
				x			12																Includes 5 BACKFIRE B Mod
				х			12																Includes 5 BACKFIRE B Mod
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Top Secret RUFF

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Top Secret RUFF

		,	/ DA	TE	/covera	GE/	BACKF	IRE ,	/			BE	AR			7		· · · · · · · · · · · · · · · · · · ·	BISON					25 <b>X</b> 1
	INSTALLATION/FACILITY	A VO	75 / 58 / 5 8 / 8 / 5	COMPLETE	4 /4/41	8/3	MODIFIED 8		/	0	00m/s	VARIANT	Mock	LEAMINED	<b>*</b> /•	WO PROC	280 M C 28E	.//	UNDETERM	O3Min.		REMARKS		
	Akhtubinsk FTC		х			8 1			1	1		1									ding 1 BACKF	RE B Mod & 1 BEAR C Mod		25X1
			×			7 1			1	1		1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		
				×		7 1			1	1		1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		
				х		6 1			1	1		1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		
			х			6 1			1	1		1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		
Тор			×			6 1			1	1		1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		Тор
				x		4 1				1		1							_	Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		Se
- 26 - Secret			×			5 1			1			1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		Secret
⊐			×			6 1			1	1		1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		Ž.
RUFF			×			6 1			1	1		1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		RUFF
			x			5 1			1	1		1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		
			x			6 1			1	1		1								Inclu	ding 1 BACKF	RE B Mod & 1 BEAR C Mod		
			x			6 2			1	1		1								КІТС	HEN/KINGFI	SH adjacent to BACKFIRE Mo	d	
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			×			7 1			1	1		1								1 BA	CKFIRE B w	afrm		25 <b>X</b> 1
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S-00			x			7 1			1	1		1								1 BA	CKFIRE B w	afrm, BEAR C Mod w/2	KITCHEN	
S-002/80		Lil																						

				_	DAT	Ē	/covi	ERAGE	/ B	ACKF	IRE	7				BEA	\R			7		BISC	) N	<del></del> 7		25X1
	INSTALLATION/FACILITY	/5	X X (5)	H.M.	Ca. Ca.	Partere	1 N 1 N V	/	7	4 ONFIED 8	-/	/0	/	00/4	, / <u>z</u>	ARIANT	UMOETE	, mineo	/	8 MIO PS	8 W, PRO.	3800	OETERMINED		REMARKS	
	Akhtubinsk FTC				x			7	1			1	1		1			$ \uparrow $	T	$\uparrow$	$ \uparrow $			1 BACKFIRE B W	afrm, BEAR C Mod w/2 KITCHEN	225X1
					x			6	2			1	1		1									BEAR C Mod w/2 KIT	CHEN	
						×		5	2			1	1		1									1 BACKFIRE B w/	afrm, BEAR C Mod w/2 KITCHEN	25X1
						×		4	2			1			1									1 BACKFIRE B w/	afrm	
						х		5	2			1	1		1									! BACKFIRE B w/	afrm, BEAR C Mod w/2 KITCHEN	-
Тор						×		3	2															1 BACKFIRE B w/	, afrm	Тор
Se					x			6	2			1	1		1									BEAR C Mod w/2 KIT	CHEN	Sec
- 27 - Secret					x			6	2			1	1		1						1					Secret RUFF
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				_	DAT	-	/cox	/ERAGE	/ n	ACKF		7				BEAR							25X1
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	Ramenskoye FTC					×		4								2						Heavy clouds	25X1
						×		0							3	1		T `	3	1		Heavy clouds in BACKFIRE area	
					×			6								5					4	1 poss BACKFIRE Mod	
						×		6		1					4				3	1		1 BACKFIRE Mod, BEAR A w/tail ext	
					X			6		1					4				3	1		1 BACKFIRE Mod, BEAR A w/tail ext	
Тор					_	×		6		1					4				3	1		1 BACKFIRE Mod, BEAR A w/tail ext	Тор
						×		5								5			3	1			
- 28 - Secret RUFF					×	_	ļ	5								5			3	1			Secret
20					×	1		5								4			3	1			e R
Ę						×	ļ	5		1			4		4				3	1		airframe on BACKFIRE B, BEAR A w/tail ext	25X1
					X	1	1	5		1					4				3	1		BEAR A w/tail ext, aiframe obscured by obliquity	25X1
					X	1		4		2					3	1			3	1		1 BACKFIRE Mod, 1 BACKFIRE B in test/derelict area	
						×		3		1	_				2				2	1		BEAR A w/o tail ext, BISON B wing off	
						×	ļ	4		2	1			_	3				3	1		1 - BISON B partially disassembled	
						×		4		2	1			_	2				2	1		1 - BISON B partially disassembled	
						×		4		1	1				3				3	1		1 - BISON B partially disassembled, 1 BEAR A w/tail ext	
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	INSTALLATION/FACILITY		TE SOMOS	COVERAGE	DETERMINED	,/0	/_/_	BEAR	ONDETERMINED	K / 8	3808 0 M 8	BISON	REMARKS	
	Belaya Airfield	x		15										25 <b>X</b> 1
			х	15									Partial coverage	
		×		17										
			×	13						T	1		Scattered clouds	
		×		17										
Тор		×		17										Тор
ς,		x		7									Low count due to deployment of 10 BACKFIRE B to Dolon Airfield	ý
- 29 - Secret		×		9									Low count due to deployment of 8 BACKFIRE B to Dolon Airfield	Secret RUFF
20		×		17										.∺ ⊐
RUFF		×		17										두
"		x		9										71
			×	0									Heavy clouds	
			×	7									Partial coverage; low count of BACKFIRE due to light activity	
			×	0									Heavy clouds	
			×	17									Partial coverage	
			×	9									Partial coverage; low count of BACKFIRE due to light activity	
		x		17										
			×	5									Heavy clouds	
			x	10									Heavy clouds	
S-00		x		17										
S-002/80														

		_	DAT	TE	/cover.				/				BEAR			7		BIS	ON	<del></del>	2
	INSTALLATION/FACILITY	740 MONTH	(548)	STATION OF	14/141 4	/ 	UNDETERMIL	8	/0	/0	/4	/	(Moe.	L'ERMINEO	\ \ \	B WOOD	B W PROSE	3/ 1	MOETERMINED	REMARKS	
	Belaya Airfield		×			17								$\top$		1	$ \uparrow $				2
			X			17															
				x		16														Partial coverage	
			×			16															
				×	-	17														Partial coverage	
Тор				×	-	17								_						Haze	
				×		17														Partial coverage	
- 30 - Secret RUFF				×		1														Heavy clouds	
t R				×	1 1 5	rob														Heavy clouds	
Ę			X			17														Haze	
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			X			14															
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																				700	
S-00																					
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25X1

25X1

Top Secret RUFF

25X1

25X1

Top Secret RUFF

	SALT READ-OUT SHEET																			
	INSTALLATION/FACILITY	ANOW!	DATI	PARTETE	COVER		BACK		/	,/<	,/,	,/4	BEAR	UNDETERMI	O James /	/ 8	8 W. OPAOBS	28086	BISON	REMARKS
	Poltava Airfield		×			18														
			x			11	-		-	-			-		-					
				×		10	+	+		+			<u> </u>		ł					Scattered clouds
				x	-	12	+		1											Heavy clouds
Top				×	-	18	_	1	+	†	1									Heavy clouds
Se .				×		19														Partial coverage; poss BACKFIRE exercise in progress
- 31 - Secret			X			19														
RUFF			×			19		-			-									
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														25X1
		DA	TE C	OVERAGE	BACKFIRE			BEAR		7		BISON	7	
	INSTALLATION/FACILITY	1	COMPLETE	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	UNDETERMINED 8	0/0	/4/4	UMDETED	O3MIM. P	8 WO P.	8 W. 708E	UNDEFERMINED	REMARKS	
	Soltsy Airfield	×		13										25 <b>X</b> 1
			×	12									Partial coverage	
		×		19										
		×		18										
			×	17									Partial coverage	
Тор		×		19										Тор
Se .		×		19										
32 -		×		19					11		11			Secret RUFF
RUFF		X		20					1	_				20 ·
Ŧ		x	+	19										UFF
			×	14		-			$\perp$		1 4		Heavy clouds Scattered clouds; 1 BACKFIRE B observed with missile	"
		×	+^ }-	19					1 1				Scattered clouds, I BACKFIRE B observed with missile	
		×	-	20					+		++		A second environmental shelter under construction	
			×	20					$\perp$		+		Partial coverage	
		×	-	28				-	Hi		+ +			
			x	8					++	-	+ +		Scattered clouds	
			x	11				-	+	-	+		Heavy clouds	
		×	++	12	+++					-	+++		AS-4 exercise in dispersal area	
S-(			+-+-	+	1 1		_			+	+-+			
S-002/80														

			/	DAT	E,	/cove	RAGE		ACKFI		/				BEA				/	/		BISON	/
INSTALLATION/FACILITY	100	Mo.	YEAS LAST	× / , , , , ,	PADLETE	78/14	/	/m	A FERMINES	) /*	/0	/0	/4	./	/	UNDET	CHMINED	/	/ W 8	8 W. 0 PROBE	38086 2	UNDEFERMINED	REMARKS
Ryazan Dyagilevo	′			x		5	3							f -			$ \uparrow $	1				2 undet 3 fus	1 BACKFIRE B with damaged right wing
				x		5	3								T	-	+	1	1			3 fus	
				x		3	3	2							1		1	$\top$	1			2 undet 3 fus	
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					×					İ													Heavy clouds; none observed
					х	3	2	3														1B	
				×		5	3											8		1		3B fus	
					х																		Heavy clouds; none observed
					×	2	2	4												1		1 undet 3B fus	
					х																		Heavy clouds; none observed
				x		4	4											1	1			3B fus w/probe	BACKFIRE B with right wing removed; still observed
!																							
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					$\overline{}$	DAT	Ε,	/cove	RAGE		ACKF		7				BEA					7			BISO	N	7
		INSTALLATION/FACILITY	/¿	Λ. Δ.	K COUTH	COM	PAPETE	74/14/	/	/ July	A CETERNIA.	03/ 8	/\	/	/4	./.		UND	ETERMINE	0,	/ / 8	8 0 PROP.	2000 S	./	, cmo	ETERMINED	REMARKS
		Bukhov Airfield					×		4																		Only 25 per cent of the airfield was imaged
						×			27																		Tail service platform observed near one BACKFIRE; refueling trucks observed near several BACKFIRE
						×			27																		
						×			36																		BACKFIRE high count
						x			36																		
Top						x			36																		
Š						x			36																	****	
Top Secret	34					x	Ī		36																		Poss engine change in progress in BACKFIRE maintenance area
Ä R							×		27																		Scattered clouds over airfield
RUFF						X			36																		Haze over 50 percent of airfield
П							х		36						İ —												Scattered clouds; BACKFIRE areas clear
							×		25									-									Scattered clouds over airfield
							İ																				
				1																							
									$\exists$															_			
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	INSTALLATION/FACILITY		1 2	HAMO X	/ 2005	PA JAMPLETE PA JAMPLETE	74774 A 4	/  /  ø	A VETERMIN	//	/	,/<	/ ,/,	,/,	/	/	WOETERM		//.	M/0 PROP	18084 M	UNDETERMI	•			RE	MARKS		
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					×			17																					
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					x			12															Fin	st iden of SN	NA BAC	CKFIR	E with wir	g mounted	AS-4
Top						×		13															AS	M/AS-4 exer	rcise in	progre	ess		
Se -						×		6																					
35 cre					X			17																					
<del>.</del> .						×		14																					
- 35 - Secret RUFF					×			17					Ĺ										Or	ne BACKFIR	RE with	prob /	AS-4 under	starboard	ving
						×		11																					
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	INSTALLATION/FACILITY	1 KUNOW	DAT	7	COVERA		ACKFIRE BUILDED	/ /	0/-		BEAR	UNDETERMIL	A A	M &	8 W PB BE	380, 0	ONDETERMINED	REMARKS	
	Nikolayev Kulbakino Airfield		×			2	Í	:		5					1			1 BEAR D w/tail extension 1 BEAR D, 3 BEAR F, 4 BEAR D/F at acft rpr fac	X1
				х						T								Only 10 per cent of airfield visible; no AOB observed	
			х			4		6	,	6	1 D/F							1 BEAR F w/vert stab tip pod 5 BEAR D, 4 BEAR F at acft apr fac	
				x		4				5	1 D/F				- †			Scattered clouds	
_			x			7		2 4 p	rob	4								5 BEAR D, 4 BEAR F at acft rpr fac First observation of BACKFIRE at acft; rpr fac; new high count of BACKFIRE for this airfield; 1 BACKFIRE B, 1 BEAR D, 3 prob BEAR D, 2 BEAR F at acft rpr fac	
Тор						7					4 D/F							<u>o</u> '	
Se .			X			7		1		4			1			_		1 BEAR D at afld; with tail extension	
36 cret			Х							4								1 BEAR D at afld; with tail extension; 1 BACKFIRE B, 3 BEAR D, 2 BEAR F at acft apr fac	
20				х		4				3								Partial cloud cover over acft parking apron; 1 BACKFIRE B, 3 BEAR D, 3 BEAR F at acft rpr fac	
RUFF				х		5		1	!	2								D, 3 BEAR F at acft rpr fac  1 BEAR F w/vert stab tip pod, acft apr fac not imaged  1 BEAR F w/vert stab tip pod at af/d: 1 BACKFIRE B	
•			×			7		•	•	5								1 BEAR F w/vert stab tip pod at afld; 1 BACKFIRE B, 4 BEAR D, 3 BEAR F	
				Х		1		4	1	3								90 percent of afld cloud covered; observed BACKFIRE and BEAR acft at acft apr fac	
			×			7		1 0	rob	2	4 D/F							1 BEAR F w/vert stab tip pod; 1 BACKFIRE B, 3 BEAR D, 4 BEAR D/F at acft rpr fac	
																		*None of the BACKFIRE were observed with refueling probes	
																		during this period	
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				DA	TE	/cov	ERAGE,	/ BA	CKFI	RE ,	/				AD-C	R				7			BISON			7				
	INSTALLATION/FACILITY	700	HINOM	, E49	COMPLETE	1 N 1 N V	/	Como	A SERMINES	0/0	/,	/0	/4	./4		UNC	JETERMINE	0.2. / 4	/ 8	MO PROP. 8	30 PR 08 C	.//	UNDET	CHMINED		7	REI	MARKS		
	Taganrog Airframe Plt Dimitrov 86		,	×	-									2											,					
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	/ D.	ATE	/covi		BACK		<u>/                                    </u>	,		BEAR		/	/	BISON	
INSTALLATION/FACILITY	10011 1542 10011 10011	COMPLETE	4 441	/ /&/:	ONDETERMIA.	9	, ,/v	/0	/ / <u>u</u> /	<sup>s</sup> weer.	CHUMED	8 8	8 M 0 POBE 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	UNDEFERMINES	REMARKS
Dolon Airfield	×					13	5		3		1				
	×				16			1	poss	18 B/C 1A/B/C					
	×				16		4		2 poss	11 B/C					6 BEAR B/C with belly-mounted AS-3
	×				Ī				poss	37 A/B/C					
	×	T							prob	18 A/E 18 B/C					
	×				16				2	16 B/C	2				
	x				7	12	3 prob				2				
	X				7	11	7		2		2				1 BEAR B and 1 BEAR C with belly-mounted AS-3
		×		10					1	18 A/E 18 B/C					Scattered clouds; first sighting of BACKFIRE at this airfie during this reporting period
	x			8	17		4 prob		1 prob		2				The BACKFIRE deployed here to participate in a spring flight training exercise
	×				18	1			1 rob	17 B/C	2				
		X			14 prob					6 B/C	2 prob				Scattered clouds
	×				15	16	3		2		1				
	×				15	12	7		2		1				
	x				16	1			1 rob	18 B/C					
	×	1			16	11	6 prob		1		+				
		×			17 prob		1		1 rob	17 B/C	+				
	×				16			- 1	2	18 B/C	+				1 AN-22 (COCK) was observed
	×				17	-	1		1	17 B/C		1			
		×			16	12	6	+	2		+	+-+			
		X	++	-+-	11	7	1		2	4 B/C		$\perp$		L	

			S	Sanitized	d Copy A	Approv	ed fo	r Rele	ease 20	010/10/15 : C	CIA-RI	DP80	T01355	A00010014	10001-2		
	INSTALLATION/FACILITY	1 4 KO W W W W W W W W W W W W W W W W W W	DATE	17		A POETER MED				BEAR	, mineo	7 8	8 W P808E	BISON	Guman	REMARKS	25X1
	Dolon Airfield			×		16 1			2		$\perp$						25X1
		-	x			17	-	1	1	17 B/C	-	2		-			
			х.	_		15 1			2			2	-				
			x			14 1			2			2					
Top			x			14 1	2 5		2			2			1 BEAR C WIT	h belly-mounted AS-3	Тор
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		,	/	ATE	Trove	RAGE/	RACE	FIRE	7			R	EAR			/		BISON	7
	INSTALLATION/FACILITY	180 MON.	7 /	77	7	AAGE/	UNDETED	A A		/0	/4/	//	UNDERER.	A WINED	- M	8 W. C PROBE	38086	7/ 6	REMARKS
	Mozdok Airfield			×			1					7	:0 B/C					·	Heavy clouds; 21 BEAR normally seen here
				×			1	17	3										Scattered clouds
				×				11	5										Scattered clouds; low count
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25X1 BISON DATE COVERAGE BACKFIRE BEAR | UNDETERMINEO | € 8 WO PROSE 8 W/ PA08£ COMPLETE | P49714L INSTALLATION/FACILITY REMARKS TEAN WONTH Scattered clouds; 36 BEAR normally seen here; a probable ASM exercise was observed; two KANGAROO were parked in front of 2 BEAR and 1 KANGAROO was in tow; 15 additional KANGAROO were parked on the ASM parking apron. 20 25X1 Uzin/Chepelevka Airfield - 42 -Top Secret RUFF

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		/ D.	ATE /C	OVERAGE BA	CKFIRE /		BEAR		BISON	:
	INSTALLATION/FACILITY	MONTH VESA	COMPLETE	7 8 M	C 8 4	0/4/4	UNDEFERMINED	8 WORO8E C C C C C C C C C C C C C C C C C C C	Unoffenmen	REMARKS
	Belaya Tserkov Airfield	x					7 A/B/C		All aircraft seen in aircra	t repair base area
			×				3 A/B/C			
			x				0		Heavy clouds	
		×					7 A/B/C			
		×		$\perp$	1		7 A/B			
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Sec			++	+++		+				
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		_																		25X1
		$\perp$	DAT	E	COVE	RAGE/		KFIRE		,	,	,	BEAR			<u> </u>		BISON		
	INSTALLATION/FACILITY	MOMTH 27	Co.	PALETE	747/4/	/ /	UNDETE	A CAMINED	/ / /	/ is/(	0/4	, / u	<sup>CM</sup> DETERM.	O. M.E.		MO PROP. 8	36086	<sup>U</sup> MOF FEMINES	REMARKS	
	Alekseyevka Airfield			×								14							14 BEAR F are normally seen at this airfield	25X1
				×								10								
				×								14								_
			×									14								
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- 44 - Secret RUFF				×								10								Secret RUFF
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				×								12							Scattered clouds	
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				×								7							Scattered clouds	
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## DATE COVERAGE BACKFIRE BEAR BISON UNDETERMINED = 8 W/PR08E COMPLETE 1847146 INSTALLATION/FACILITY REMARKS WOWN FEAR 21 23 11 BEAR F with vertical stabilizer tip pod aft Kipelovo Airfield X 17 2 D/F х 21 10 BEAR F with vertical stabilizer tip pod aft 23 х 21 12 BEAR F with vertical stabilizer tip pod aft 24 23 13 BEAR F with vertical stabilizer tip pod aft 3 1 D/F Heavy clouds 1 BEAR F with vertical stabilizer tip pod aft 22 22 1 BEAR F with vertical stabilizer tip pod aft 13 BEAR F with vertical stabilizer tip pod aft 23 23 х 13 prob 13 Heavy clouds 6 BEAR F with vertical stabilizer tip pod aft 10 BEAR F with vertical stabilizer tip pod aft х 13

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	INSTALLATION/FACILITY	APA MUNITH	DAT	PARTA.	COVERAGE	BA OND	CKFIRE	<b>%</b> /\(\sigma\)	/0/	/_/_	BEA	UNDETERM	A MINEO	8 M.O.	8 W, 9808E	BISON		
	Severomorsk Airfield		x	X						1 1		·/F					A BEAR F with a tear drop shaped blister and vertical stabilizer tip pod forward was observed throughout this reporting period Partial coverage	25X1
- 48 - Top Secret			X X X	X						1 1 1							Partial coverage	Top Secret
- 48 - Secret RUFF			x x	x						1 1							Partial coverage - vertical stabilizer tip pod was removed	Secret RUFF
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	DATE	/COVERAGE/ BACKFIRE /	BEAR	/ BISON /	
INSTALLATION/FACILITY			DO THE DESCRIPTION OF THE PROPERTY OF THE PROP	REMARKS	
Engels Airfield	×		8		
	×	2 1	2	2 2 18 1 15	
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	x	2 4	8	8B 7 20 3	
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DATE COVERAGE BACKFIRE BEAR BISON 8 WO PROBE 380W / W 8 C COMPLETE JANJAK | INSTALLATION/FACILITY REMARKS Ukraina Airfield 13 3 3 1 undet 2 A/C 5B 2 undet 6B 32 3 11 4 14 undet 88 4 undet 4B 4 undet 13B 1 undet х 4 0 12 6 0 х 3 5 Х 10 2 undet 1B 3B 5 5 6 4 18 undet 5B 10 undet 4B 7B 3 3 6 0 11 3 12 5 3 12 3 6 6 17 6 17 5 1 undet 2B 9 14 5 6 х 3 4 6 3 3 5 13 2 8 undet 3B 34 2

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BISON COVERAGE BACKFIRE BEAR DATE 8 W PO8¢ 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 100m | 10 PARTIAL REMARKS INSTALLATION/FACILITY Ukraina Airfield 2 undet 1B 4 undet 5B 4 16 5 10 3 х 2 undet 15 6 2 6 4 16

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